

A RECORD OF SOME BAT FLIES (DIPTERA: NYCTERIBIIDAE) FROM TURKEY¹

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ABSTRACT: Although nycteribiid bat flies have been recorded from Turkey, there are few specific locality records for such species in this country. A report on the collection of five bat-fly species from Turkey, along with their host records, is presented here. The bat flies include *Penicillidia* (*P.*) *dufourii* *dufourii*, *Phthiridium biarticulatum*, *Nycteribia* (*N.*) *schmidlii* *schmidlii*, *N. (N.) pedicularia*, and *N. (N.) latreillii*.

DESCRIPTORS: Bat flies, Nycteribiidae, Turkey.

The Old World bat-fly fauna of the family Nycteribiidae is well known through many papers by many authors. Despite this vast literature, there are no papers that treat specifically the nycteribiid fauna of Turkey and, except for the works of Theodor and Moscona (1954), Aellen (1955), Theodor (1956, 1967), and Hürka (1964b, 1972), there are very few papers that even list specific localities for such species in this country. However, a number of papers have been published which mention or deal with various aspects of the nycteribiid fauna of near-by countries or those having a common border with Turkey. The more useful, recent, and probably most reliable works include those of Aellen (1955, 1959), Chalupský (1956), Decu-Burghese (1962a, 1962b), Guéorguiev and Beron (1962), Hürka (1958, 1962, 1963, 1964a, 1964b, 1968, 1969), Hürka and Povolný (1968), Karaman (1936, 1939, 1961), Lewis and Harrison (1962), Maa (1968), Pieper (1965), Stackelburg (1928), and Theodor (1956). For other literature on the bat flies of the general area, Maa's (1971) bibliography of bat-fly literature should be consulted.

In view of the paucity of specific records from Turkey, it seems worthwhile to provide the following species records. A total of 58

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bat fly specimens were obtained from a series of bats collected from Halkali, Küçük Çekmece, Istanbul, and recorded by DeBlase and Martin (1973). Five of the most common species of Nycteribiidae were represented in this collection, each of which is widely distributed throughout continental Europe, North Africa, and West Asia (Theodor, 1967).

Penicillidia (P.) dufourii dufourii (Westwood) - 6♀♀, 2♂♂, from *Myotis myotis*; 1♀, 1♂, from *Myotis blythi*; and 2♂♂ from *Miniopterus schreibersi*.

Within its known geographical range, the typical subspecies of *P. dufourii* has been most frequently recorded from the following bats: *Rhinolophus ferrumequinum*, *R. euryale*, *R. hipposideros*, *Rhinolophus* sp.; *Myotis myotis*, *M. blythi oxygnathus*, *Miniopterus schreibersi*, *Nyctalus* sp., *Plecotus auritus*, *Vespertilio murinus*.

Phthiridium biarticulatum Hermann - 1♂, from *Rhinolophus euryale*.

Within its geographical range, this species has been reported most frequently from the following bats: *Rhinolophus ferrumequinum*, *R. euryale*, *R. hipposideros*, *R. blasii*, *R. mehelyi*, *Rhinolophus* sp.; *Myotis myotis*, *M. blythi oxygnathus*, *M. capaccinii*, *M. emarginatus*, *M. daubentoni*, *Miniopterus schreibersi*, *Plecotus auritus*, *Pipistrellus pipistrellus*, *Vespertilio* sp.

Nycteribia (N.) schmidlii schmidlii Schiner - 2♀♀, from *Myotis myotis*; 8♀♀, 2♂♂, from *M. blythi*; 14♀♀, 2♂♂, from *Miniopterus schreibersi*; and 1♀, 1♂, from *Rhinolophus euryale*.

Within its geographic range, this species has been reported most frequently from the following bats: *Rhinolophus ferrumequinum*, *R. euryale*, *R. hipposideros*, *Rhinolophus* sp.; *Myotis blythi oxygnathus*, *M. capaccinii*, *Miniopterus schreibersi*, *Nyctalus* sp., *Plecotus auritus*, *P. auritus christiei*, *Vespertilio murinus*; *Tadarida teniotis*.

Nycteribia (N.) pedicularia Latreille - 3♀♀, 1♂, from *Myotis myotis*; 1♀, 1♂, from *M. capaccinii*; and 3♀♀, 4♂♂, from *Miniopterus schreibersi*.

Within its geographical range, this species has been recorded most frequently from the following bats: *Rhinolophus ferrumequinum*, *R. hipposideros*, *Rhinolophus* sp.; *Myotis myotis*, *M. capaccinii*, *Myotis* sp.; *Miniopterus schreibersi*.

Nycteribia (N.) latreillii (Leach) - 1♀, 1♂, from *Myotis myotis*.

Within its geographical range, this species has been reported most frequently from the following bats: *Rhinolophus ferrumequinum*, *R. euryale*, *R. hipposideros*; *Myotis myotis*, *M. blythi oxygnathus*, *M. capaccinii*, *Miniopterus schreibersi*, *Vespertilio murinus*.

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REQUEST

Wanted: Acacia watchers. D.B.O. Savile of the Biosystematics Research Institute, Saunders Bldg., Central Experimental Farm, Ottawa, Canada, K1A 0C6, and K.A. Pirozynski have evidence that the compound teliospores of the rust genus *Ravenelia* evolved by mimicry of the compound pollen grains of *Acacia* and other mimosoids. (More details in Savile, *Evolutionary Biology*, 1976, in press). The pollen sheds freely onto the foliage, whence it is evidently gleaned by bees that also transport the rust spores. There is evidence that stingless bees, Meliponinae, are involved. Biologists planning to visit *Acacia* savannas in any part of the world are urged to collect any bees seen foraging on the foliage, for identification of the insects and analysis of the pollen-basket contents. Two tips: Do not bother with the specialized ant acacias, from which the ants promptly chew up pollen and spores to feed their broods; and do not disturb the nests of stingless bees, which bite furiously. Please copy this note for any potential co-operator.